

METHOD AND SYSTEM FOR SHAPING TRANSMITTED POWER SPECTRAL
DENSITY ACCORDING TO LINE CONDITIONS

ABSTRACT

5 The present invention provides methods and systems for improving the
performance of a pair of non discrete multi-tone based digital subscriber line modems by
choosing transmitted power spectral densities according to line conditions. The
G.SHDSL and HDSL2 standards, for example, may specify the transmitted power to be
less than a certain value at any given frequency. The present invention provides a
10 method and system for shaping power spectral density based on line conditions where
first line condition data associated with a first modem is determined; second line
condition data associated with a second modem is determined; the first and second line
condition data are exchanged, and a transmit spectrum is shaped in response thereto.